This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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1   **Claim 1** (currently amended) A network apparatus for

2   communicating multi-media information by mobile terminals,

3   comprising:

4   an Internet interface means for establishing an

5   interface with the Internet;

6   a mobile interface means for establishing an

7   interface with a mobile network;

8   a protocol processing means for applying a

9   protocol process to information which is processed by the

10   Internet interface means and the mobile interface means;

11   an image information edit processing means for

12   editing a display characteristic of image information which

13   is extracted by the protocol processing means into image

14   information suitable for a mobile communication with a

15   mobile terminal <u>by thinning the image information, said</u>

16   <u>display characteristic being at least one of a screen size</u>

17   <u>of the image information and a color depth of the image</u>

18   <u>information</u>;

19   a storage unit for storing the image information

20   which is edited by the image information edit processing

21   means; ~~and~~

22   a storage unit controlling means for controlling

23   to store the image information in the storage unit and to

24   read the stored image information; and

25   a transmission timing control processing means

26   for informing the storage unit controlling means of a

27   transmission timing so as to transmit the image information

28   continuously every unit time.

1   **Claim 2**   (previously amended)   A network apparatus

2   according to claim 1, wherein the image information which

3   is transmitted/received in respective interfaces of said

4   Internet interface means, said mobile interface means, said

5   protocol processing means, said image information edit

6   processing means, and said storage unit controlling means

7   is communicated in a cellulated format.

1   **Claim 3**   (currently amended)   A network apparatus

2   according to claim 1, wherein said mobile interface means

3   includes:

4   a mobile protocol reception processing means for

5   receiving information from the mobile network and then

6   informing the protocol processing means; and

7   a mobile protocol transmission processing means

8   for transmitting information from the protocol processing

9   means and information from the storage unit controlling

10 means to the mobile network via a transmission process, and

11 ~~a transmission timing control processing means~~

12 ~~for informing the storage unit controlling means of a~~

13 ~~transmission timing so as to transmit the image information~~

14 ~~continuously every unit time~~.

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1 **Claim 4** (original) A network apparatus according to claim

2 1, wherein said Internet interface means includes:

3 an Internet protocol reception processing means for

4 performing a communication process of the information received

5 from the Internet and then informing the protocol processing

6 means; and

7 an Internet protocol transmission processing means for

8 transmitting the information received from the protocol

9 processing means to the Internet.

1 **Claim 5** (original) A network apparatus according to claim

2 4, wherein said Internet interface means includes an interface

3 for cellulating the information to communicate communication

4 information and the image information when the Internet protocol

5 reception processing means and the Internet protocol transmission

6 processing means communicate with the protocol processing means.

1 **Claim 6** (original) A network apparatus according to claim

2 1, wherein said protocol processing means includes:

3 an Internet protocol address analysis processing means

4   for analyzing that the information from the Internet interface

5   means correspond to either of communication information and the

6   image information;

7   an image information protocol processing means for

8   executing a protocol process of the image information from the

9   Internet protocol address analysis processing means;

10   a data reproduction processing means for processing

11   the image information which are protocol-processed by the image

12   information protocol processing means to reproduce original

13   information; and

14   a communication network protocol processing means for

15   protocol-processing the information supplied to the Internet and

16   the mobile network.

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2   **Claim 7** (original) A network apparatus according to claim

3   1, wherein said image information edit processing means includes:

4   a reproduced data storage unit for storing the image

5   information reproduced by the protocol processing means;

6   a received data managing means for managing

7   writing/reading of reproduced data into/from the reproduced data

8   storage unit; and

9   a reproduced data editing means for editing the

10   reproduced data read from the reproduced data storage unit into

11   a format which is suitable for the mobile terminal.

1   **Claim 8** (original) A network apparatus according to claim

2   3, wherein said mobile protocol transmission processing means

3   includes:

4   an asynchronous information processing means for

5   processing asynchronous communication information from the

6   protocol processing means;

7   a synchronous information processing means for

8   processing synchronous image information form the storage unit

9   controlling means;

10   a transmission buffer for transmitting the information

11   to the mobile network; and

12   an information write controlling means for controlling

13   to write the image information from the synchronous information

14   processing means into the transmission buffer prior to

15   communication information form the asynchronous information

16   processing means,

17   whereby the image information processed by the

18   synchronous information processing means are transmitted to the

19   mobile network prior to the communication information so as to

20   allow continuous reproduction of the image information.

1   **Claim 9** (original) A network apparatus according to claim

2   1, wherein said storage unit controlling means includes:

3   an edit data split processing means for splitting

4   edited information edited by the image information edit

5   processing means into cellulated information to write them into

6   the storage unit;

7   a storage unit managing means for managing reading

8   process/ writing process from/into the storage unit;

9   a data storage processing means for instructing the

10   storage unit managing means of writing of split data edited by

11   the edit data split processing means; and

12   a data read processing means for instructing the

13   storage unit managing means of reading in response to a reading

14   timing instruction issued from the mobile interface means.

1   **Claim 10** (original) A network apparatus comprising:

2   a mobile interface means for establishing an interface

3   with a mobile network in communication with the mobile network;

4   a protocol processing means for processing protocol of

5   information supplied from the mobile terminal and processed by

6   the mobile interface means;

7   a storage unit controlling means for controlling to

8   read image information stored in the storage unit;

9   wherein the image information read from the storage

10   unit are supplied constantly to the mobile network to deliver

11   broadcast.

1   **Claim 11** (currently amended) A network apparatus for

2   communicating image information between mobile terminals

3   comprising:

4   a mobile interface means for establishing an

5   interface with a mobile network in communication with the

6   mobile network;

7   a protocol processing means for processing

8   protocol of image information from one of the mobile

9   terminals;

10   an image information edit processing means for

11   editing a display characteristic of the image information

12   into edited information suitable for said one of the mobile

13   terminals, said display characteristic being at least one

14   of a screen size of the image information and a color depth

15   of the image information;

16   a storage unit for storing the edited

17   information; and

18   a storage unit controlling means for controlling

19   to store the edited information into the storage unit and

20   to read stored edited information.

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1   **Claim 12**   (original)   A network apparatus comprising:

2   an image information conversion processing means for

3   converting plural types of image information formats, which are

4   handled by respective mobile terminals, into a common image

5   information format, which can be handled commonly in

6   communication with the mobile network.

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1   **Claim 13**   (currently amended)   A network apparatus

2   comprising:

3   a mobile interface means for establishing an

4   interface with a mobile network in communication with the

5   mobile network;

6   a protocol processing means for processing

7   protocol of image information from the mobile terminal;

8   an image information conversion processing means

9   for converting the image information into a common image

10   information format;

11   a storage unit for storing converted image

12   information;

13   a storage unit controlling means for controlling

14   to store the image information into the storage unit and to

15   read stored image information; and

16   an image information custom processing means for

17   editing a display characteristic of the image information

18   read from the storage unit into the image information which

19   is suitable for respective mobile terminals, said display

20   characteristic being at least one of a screen size of the

21   image information and a color depth of the image

22   information;

23   wherein the image information can be communicated

24   between different types of mobile terminals.
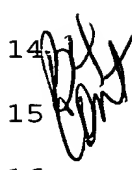
1   **Claim 14**   (currently amended)   A network apparatus

2   comprising:

3   a mobile interface means for establishing an

4 interface with a mobile network in communication with the

5 mobile network;

6   a protocol processing means for processing protocol

7 of image information from the mobile terminal;

8   a storage unit for storing the image information in

9 a common image information format;

10   a storage unit controlling means for controlling to

11 store the image information into the storage unit and to read

12 stored image information; and

13   an image information custom processing means for

14 editing a display characteristic of the image information

15 read from the storage unit into the image information which

16 is suitable for respective mobile terminals, said display

17 characteristic being at least one of a screen size of the

18 image information and a color depth of the image information;

19   wherein the image information read from the storage

20 unit are supplied constantly to the mobile network to deliver

21 broadcast.

1   **Claim 15** (currently amended) A network apparatus for

2 communicating multi-media information by mobile terminals,

3 comprising:

4   an Internet interface means for establishing an

5 interface with the Internet;

6   a mobile interface means for establishing an

7   interface with a mobile network;

8   a protocol processing means for processing protocol

9   of information which is processed by the Internet interface

10   means and the mobile interface means;

11   an image information conversion processing means

12   for converting the image information extracted by the

13   protocol processing means into a common image information

14   format;

15   a storage unit for storing the image information

16   converted by the image information conversion processing

17   means;

18   a storage unit controlling means for controlling

19   to store the image information into the storage unit and to

20   read stored image information; and

21   an image information custom processing means for

22   editing and processing a display characteristic of the

23   image information read by the storage unit controlling

24   means to perform a mobile communication, said display

25   characteristic being at least one of a screen size of the

26   image information and a color depth of the image

27   information.

1   **Claim 16** (currently amended) A network communication

2   method applied to a network apparatus in a network for

3   communicating multi-media information by mobile terminals,

4   comprising the steps of:

5   interface-processing information between the

6   Internet and the network apparatus;

7   interface-processing information between a mobile

8   network and the network apparatus;

9   protocol-processing the information which is

10   interface-processed;

11   edit-processing a display characteristic of the

12   image information which is extracted by protocol process to

13   perform a mobile communication, said display characteristic

14   being at least one of a screen size of the image

15   information and a color depth of the image information;

16   storing the image information which is subjected

17   to edit process; and

18   controlling storing of the image information and

19   reading of stored image information.

1   **Claim 17**   (previously amended)   A network

2   communication method according to claim 16, wherein the

3   image information which is transmitted/received is

4   communicated in a cellulated format in an interface with

5   the Internet interface means, an interface with the mobile

6   interface means, an interface when the information which is

7   interface-processed is protocol-processed, an interface

8   when the image information extracted via the protocol

9   process is edit-processed, and an interface when the image

10   information is stored and stored image information is read.

1   **Claim 18**   (original)   A network communication

2   method according to claim 16,wherein the step of interface-

3   processing the information between the mobile network and

4   the network apparatus includes the steps of:

5   receiving the information from the mobile network

6   and then informing the protocol processing means;

7   transmitting the information form the protocol

8   precessing means and the information from the storage unit

9   controlling means, which controls storage of the image

10   information, via transmission process to the mobile

11   network; and

12   informing the storage unit controlling means,

13   which controls storage and reading of the image

14   information, of a transmission timing so as to transmit the

15   image information continuously ever unit time,

16   whereby continuous reproduction of the image

17   information for the mobile network can be achieved based on

18   such information of the transmission timing to the storage

19   unit controlling means.

1   **Claim 19** (original)   A network communication method

2   according to claim 16, wherein the step of interface-

3   processing between the Internet and the network apparatus,

4   includes the steps of:

5   performing a communication process of the

6   information received from the Internet and then informing

7   the protocol processing means; and

8   transmitting the information received from the

9   protocol processing means to the Internet.

1   **Claim 20**   (previously amended)   A network

2   communication method according to claim 19, wherein the

3   step of interface-processing between the Internet and the

4   network apparatus, includes the steps of:

5   cellulating communication information and the

6   image information which is communicated between the

7   protocol processing means and the Internet, when the

8   information received from the Internet is communicated and

9   transmitted to the protocol processing means and also the

10   information received from the protocol processing means is

11   transmitted to the Internet.

1   **Claim 21**   (previously amended)   A network

2   communication method according to claim 16, wherein the

3   step of protocol-processing the information being

4   interface-processed, includes the steps of:

5   determining that the information which are

6   interface-processed correspond to either of communication

7   information and the image information to the mobile

8   network;

9   protocol-processing analyzed image information;

10   processing the image information which is

11   protocol-processed to reproduce original information; and

12   protocol-processing the information supplied to

13   the Internet and the mobile network.

1   **Claim 22** (previously amended) A network

2   communication method according to claim 16, wherein the

3   step of edit-processing the image information which is

4   extracted by protocol process to perform a mobile

5   communication, includes the steps of:

6   storing the image information reproduced by the

7   protocol processing means;

8   managing writing/reading of reproduced image

9   information; and

10   editing read reproduced data into a format which

11   is suitable for mobile communication.

1   **Claim 23** (previously amended) A network

2   communication method according to claim 18, wherein the

3   step of transmitting the information from the protocol

4   processing means and the information from the storage unit

5   controlling means which controls storage of the image

6   information via transmission process to the mobile network,

7   includes the steps of:

8   processing asynchronous communication information

9   from the protocol processing means;

10   processing synchronous image information from the

11   storage unit controlling means;

12   a transmission buffer for transmitting the

13   information to the mobile network;

14   storing processed synchronous image information

15   to be transmitted prior to processed asynchronous

16   communication information; and

17   transmitting the processed synchronous image

18   information to the mobile network;

19   whereby the image information processed by the

20   synchronous information processing means is transmitted to

21   the mobile network prior to the communication information

22   so as to allow continuous reproduction of the image

23   information.

1   **Claim 24** (previously amended)   A network

2   communication method according to claim 16, wherein the

3   step of controlling storing of the image information and

4   reading of stored image information, includes the steps of:

5   splitting edited data which is obtained by

6   editing the image information extracted by the protocol

7   process to perform the mobile communication so as to store

8   the edited data;

9   processing storing and reading of edited data by

10   the storage unit managing means;

11   instructing the storage unit managing means to

12   write edited split data; and

13   instructing the storage unit managing means of

14   reading in response to a reading timing instruction issued

15   from the mobile interface means.

1   **Claim 26** (currently amended) A network communication

2   method in communication with a mobile network, comprising

3   the steps of:

4   interface-processing   information   between   a

5   network apparatus and the mobile network;

6   protocol-processing information which is supplied

7   from the mobile terminal and interface-processed;

8   editing a display characteristic of the image

9   information   being   protocol-processed   into   edited

10   information suitable for the mobile terminal, said display

11   characteristic being at least one of a screen size of the

12 <u>image information and a color depth of the image</u>

13 <u>information</u>;

14   storing the edited information; and

15   controlling storing and reading of the edited

16 information;

17   wherein the image information is communicated

18 between the mobile terminals.

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1   **Claim 27** (original) A network communication method in

2 communication with a mobile network, comprising the steps

3 of:

4   protocol-processing   information   which   are

5 supplied form the mobile terminal and interface-processed;

6 and

7   converting plural types of image information

8 formats, which are protocol-processed and handled by

9 respective mobile terminals, into a common image

10 information format, which can be handled commonly.

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1   **Claim 28** (currently amended) A network communication

2 method in communication with a mobile network, comprising

3 the steps of:

4   interface-processing   information   between   a

5 network apparatus and the mobile network;

6   protocol-processing information which is supplied

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7   from the mobile terminal and interface-processed;

8   converting plural types of image information

9   formats into a common image information format;

10   storing converted image information; and

11   reading stored image information and then editing

12   a display characteristic of the image information into the

13   image information which is suitable for plural types of

14   mobile terminals, said display characteristic being at

15   least one of a screen size of the image information and a

16   color depth of the image information;

17   wherein the image information can be communicated

18   between different types of mobile terminals.

1   **Claim 29** (currently amended) A network communication

2   method in communication with a mobile network, comprising

3   the steps of:

4   interface-processing information between a

5   network apparatus and the mobile network;

6   protocol-processing information which is supplied from

7   the mobile terminal and interface-processed;

8   providing a reading instruction and a reading

9   timing to read stored image information in a common image

10   information format;

11   editing a display characteristic of read image

12   information into the image information which is suitable

13   for   respective   mobile   terminals,   said   display

14   characteristic being at least one of a screen size of the

15   image   information   and   a   color   depth   of   the   image

16   information; and

17   broadcasting   edited   image   information   by

18   supplying the edited information constantly to the mobile

19   network.

1   **Claim 30**   (currently amended) A network communication

2   method applied to a network apparatus in a network for

3   communicating multi-media information by mobile terminals,

4   comprising the steps of:

5   interface-processing   information   between   the

6   Internet and the network apparatus;

7   interface-processing information between a mobile

8   network and the network apparatus;

9   protocol-processing   the   information   which   is

10   interface-processed;

11   converting the image information extracted by the

12   protocol process into a common image information format;

13   storing the image information which is converted

14   into the common image information format; and

15   reading stored image information and then custom-

16   processing a display characteristic of the stored image

17   information, said display characteristic being at least one

18 <u>of a screen size of the image information and a color depth</u>

19 <u>of the image information</u>.